

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P563872

Luminaire Tested: **LD4C55D010 EX4C559030 4LBSQLWWH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P563872
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C55D010 EX4C559030 4LBSQLWWH
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

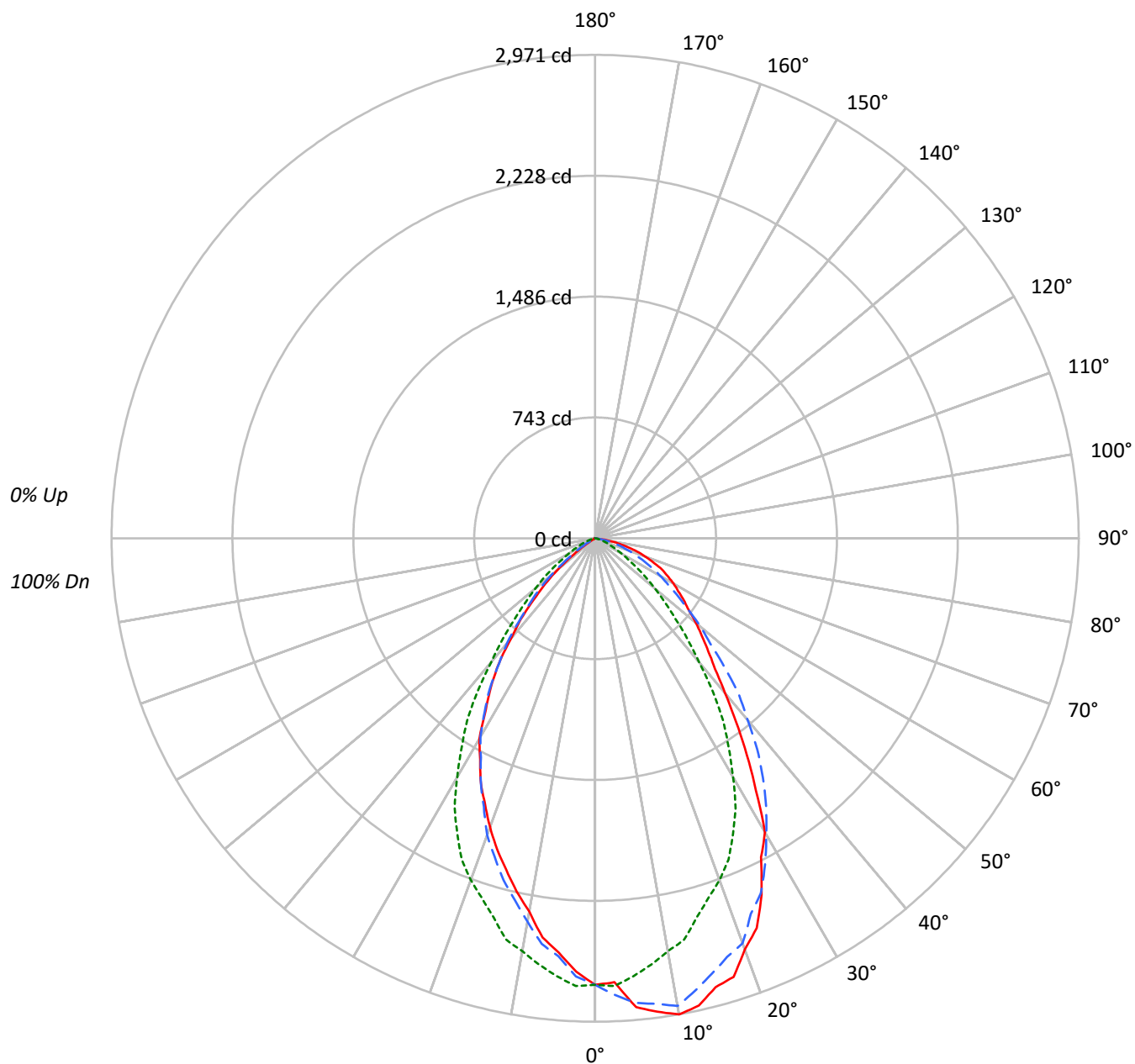
Lumens per Lamp: N/A
Luminaire Lumens: 3933.5 lumens
Efficiency: N/A
Efficacy: 61.6 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 63.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90		
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80		
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72		
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64		
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58		
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53		
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48		
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44		
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41		
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	264775	264775	264775
5°	280131	261660	247626
10°	291110	252429	228238
15°	285293	240921	210684
20°	276038	229411	193924
25°	257482	213332	176911
30°	232436	188805	158378
35°	191458	161621	131396
40°	156250	124748	101131
45°	134245	94741	72731
50°	121499	72113	45949
55°	111801	52015	16620
60°	107315	35547	2528
65°	103654	24041	776
70°	92816	16701	959
75°	76089	8612	0
80°	47509	3667	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.1	6.5
10°-20°	692.7	17.6
20°-30°	925.0	23.5
30°-40°	878.1	22.3
40°-50°	606.9	15.4
50°-60°	335.4	8.5
60°-70°	166.5	4.2
70°-80°	65.6	1.7
80°-90°	6.3	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1874.8	47.7
0°-40°	2752.8	70.0
0°-60°	3695.1	93.9
0°-90°	3933.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3933.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2744	2744	2744	2744	2744	
5°	2892	2866	2702	2580	2557	277
15°	2856	2770	2412	2175	2109	808
25°	2418	2408	2004	1662	1662	1103
35°	1625	1796	1372	1129	1116	1018
45°	984	1129	694	569	533	767
55°	665	625	309	158	99	598
65°	454	329	105	3	3	441
75°	204	125	23	0	0	217
85°	0	3	0	0	0	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1
2.5°	2731.0	2806.7	2813.2	2806.7	2816.5	2813.2	2829.7	2813.2	2833.1	2803.4	2810.0
5°	2892.2	2862.6	2925.1	2892.2	2892.2	2889.1	2879.1	2875.7	2889.1	2846.2	2866.0
7.5°	2935.0	2977.9	3033.8	2964.6	2967.9	2967.9	2948.2	2941.6	2941.6	2862.6	2885.7
10°	2971.2	2944.8	2974.5	2948.2	2971.2	2967.9	2981.0	2938.3	2967.9	2921.9	2918.6
12.5°	2941.6	2931.7	2971.2	2928.4	2915.3	2918.6	2902.2	2892.2	2902.2	2849.4	2846.2
15°	2856.0	2866.0	2925.1	2879.1	2872.5	2866.0	2846.2	2813.2	2839.6	2767.2	2770.5
17.5°	2826.5	2810.0	2819.9	2780.3	2790.3	2783.7	2780.3	2750.8	2744.1	2698.1	2698.1
20°	2688.3	2724.4	2724.4	2698.1	2698.1	2694.9	2652.0	2678.4	2648.7	2635.6	2648.7
22.5°	2592.7	2596.1	2596.1	2573.0	2576.4	2563.2	2540.2	2523.7	2540.2	2523.7	2497.3
25°	2418.5	2425.1	2464.5	2421.7	2415.1	2428.3	2408.5	2398.7	2395.4	2355.9	2408.5
27.5°	2207.8	2273.5	2270.4	2253.9	2273.5	2247.3	2237.5	2240.7	2250.7	2247.3	2260.4
30°	2086.2	2095.9	2105.9	2092.7	2095.9	2086.2	2086.2	2089.3	2115.7	2105.9	2102.6
32.5°	1839.3	1872.2	1898.6	1898.6	1901.9	1911.7	1908.4	1977.4	1994.0	1961.1	1954.5
35°	1625.4	1648.5	1671.5	1674.8	1717.6	1720.8	1724.2	1743.9	1790.0	1799.8	1796.5
37.5°	1421.5	1444.4	1451.0	1480.6	1503.7	1526.7	1553.1	1579.4	1618.9	1651.7	1635.4
40°	1240.5	1250.3	1266.8	1279.9	1325.9	1325.9	1339.1	1391.8	1434.7	1460.9	1457.5
42.5°	1089.1	1092.4	1105.5	1128.6	1171.4	1161.4	1171.4	1207.6	1270.0	1273.3	1309.6
45°	983.8	980.5	990.4	993.6	1020.0	1033.2	1039.8	1066.1	1118.7	1125.2	1128.6
47.5°	888.4	885.1	901.6	908.2	917.9	931.1	931.1	934.5	954.2	970.7	957.6
50°	809.4	809.4	809.4	816.0	832.5	829.1	832.5	845.7	855.5	848.9	845.7
52.5°	723.8	737.0	746.9	750.3	753.4	753.4	756.8	750.3	746.9	737.0	717.2
55°	664.6	677.8	677.8	677.8	677.8	691.0	674.6	677.8	677.8	651.5	625.2
57.5°	605.5	618.7	628.4	615.3	628.4	615.3	608.7	605.5	598.8	572.5	533.0
60°	556.1	562.7	559.4	556.1	562.7	552.7	546.2	533.0	526.5	490.3	463.9
62.5°	500.2	503.4	506.8	500.2	493.6	490.3	477.1	457.3	444.2	414.6	391.5
65°	454.0	444.2	440.9	437.6	431.1	421.1	411.4	388.3	378.4	352.1	329.0
67.5°	384.9	381.7	388.3	378.4	362.0	362.0	352.1	332.3	309.2	292.9	269.8
70°	329.0	325.7	319.2	309.2	306.1	292.9	292.9	269.8	263.3	233.5	213.8
72.5°	269.8	269.8	259.9	250.1	240.2	233.5	230.4	213.8	204.1	187.6	171.1
75°	204.1	204.1	200.7	190.8	184.2	177.6	174.4	161.2	151.4	135.0	125.0
77.5°	144.7	144.7	131.6	125.0	128.3	121.7	115.1	111.9	108.5	98.8	85.5
80°	85.5	82.3	72.4	75.7	72.4	72.4	69.1	65.7	59.2	52.6	46.0
82.5°	23.1	26.3	26.3	26.3	29.6	23.1	23.1	23.1	26.3	26.3	16.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	3.4	3.4
87.5°	3.4	6.6	13.1	13.1	13.1	13.1	13.1	10.0	10.0	10.0	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1
2.5°	2777.2	2773.8	2777.2	2754.1	2806.7	2767.2	2760.6	2754.1	2777.2	2754.1	2721.1
5°	2836.3	2803.4	2793.4	2783.7	2813.2	2767.2	2757.4	2760.6	2744.1	2701.5	2704.6
7.5°	2856.0	2826.5	2796.8	2734.3	2760.6	2750.8	2724.4	2704.6	2678.4	2642.2	2635.6
10°	2862.6	2829.7	2786.9	2767.2	2727.7	2714.6	2704.6	2671.8	2638.9	2576.4	2559.9
12.5°	2842.9	2803.4	2750.8	2734.3	2704.6	2661.9	2638.9	2606.0	2576.4	2527.0	2490.8
15°	2757.4	2724.4	2708.0	2652.0	2638.9	2612.5	2566.5	2520.4	2477.7	2411.8	2392.0
17.5°	2658.7	2645.5	2629.0	2586.2	2583.0	2556.6	2513.9	2474.3	2418.5	2316.4	2283.5
20°	2556.6	2556.6	2503.9	2487.6	2520.4	2467.7	2434.9	2398.7	2283.5	2234.2	2175.0
22.5°	2481.1	2444.7	2415.1	2388.8	2392.0	2359.2	2313.1	2240.7	2198.0	2138.8	2069.7
25°	2332.8	2346.1	2280.3	2270.4	2280.3	2204.5	2181.6	2122.3	2059.7	2003.8	1951.2
27.5°	2240.7	2204.5	2161.9	2125.6	2125.6	2095.9	2030.2	2017.0	1921.5	1868.9	1803.1
30°	2102.6	2076.2	2040.0	1987.4	1980.8	1957.8	1905.1	1872.2	1773.6	1694.6	1658.3
32.5°	1928.1	1918.3	1888.6	1829.5	1809.8	1783.4	1717.6	1661.7	1615.6	1526.7	1484.0
35°	1803.1	1767.0	1704.4	1655.1	1638.6	1592.5	1539.8	1500.4	1451.0	1372.1	1316.2
37.5°	1615.6	1579.4	1520.1	1460.9	1460.9	1414.9	1342.5	1303.0	1234.0	1187.8	1141.8
40°	1451.0	1405.0	1345.9	1276.7	1266.8	1200.9	1171.4	1105.5	1062.8	990.4	983.8
42.5°	1266.8	1224.0	1171.4	1118.7	1079.2	1046.4	970.7	921.3	875.3	839.1	829.1
45°	1099.0	1043.0	997.0	931.1	891.7	852.2	802.9	770.0	733.7	694.3	671.3
47.5°	954.2	908.2	842.3	783.1	743.7	723.8	667.9	631.8	602.2	575.8	559.4
50°	806.2	750.3	714.1	648.2	641.5	595.6	549.6	519.9	503.4	480.4	457.3
52.5°	694.3	641.5	592.2	543.0	516.5	500.2	457.3	427.7	404.7	388.3	375.1
55°	585.6	539.6	500.2	450.8	434.3	411.4	362.0	355.4	332.3	309.2	292.9
57.5°	503.4	460.6	414.6	381.7	352.1	335.7	296.1	269.8	256.6	236.9	220.4
60°	427.7	381.7	345.4	306.1	292.9	269.8	240.2	217.2	200.7	184.2	167.8
62.5°	358.7	319.2	279.7	246.8	227.0	213.8	190.8	171.1	154.7	141.5	128.3
65°	296.1	259.9	227.0	194.2	184.2	167.8	151.4	135.0	121.7	105.3	92.2
67.5°	243.5	210.7	177.6	154.7	144.7	138.2	118.5	101.9	92.2	82.3	69.1
70°	190.8	167.8	141.5	121.7	111.9	101.9	88.8	79.0	65.7	59.2	49.3
72.5°	148.1	128.3	105.3	88.8	82.3	75.7	62.6	52.6	46.0	39.5	32.9
75°	105.3	88.8	75.7	59.2	55.9	52.6	42.8	36.2	29.6	23.1	19.7
77.5°	72.4	59.2	46.0	39.5	36.2	29.6	26.3	19.7	16.5	13.1	10.0
80°	39.5	29.6	23.1	19.7	16.5	13.1	13.1	10.0	6.6	6.6	3.4
82.5°	13.1	10.0	6.6	3.4	3.4	3.4	3.4	3.4	3.4	0.0	3.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1
2.5°	2740.8	2704.6	2714.6	2714.6	2708.0	2708.0	2701.5	2691.5	2694.9	2675.0	2632.3
5°	2711.2	2665.2	2658.7	2665.2	2638.9	2632.3	2619.2	2638.9	2579.6	2602.7	2576.4
7.5°	2625.8	2583.0	2573.0	2596.1	2563.2	2543.4	2540.2	2566.5	2513.9	2487.6	2458.0
10°	2530.3	2513.9	2484.2	2467.7	2458.0	2461.1	2434.9	2402.0	2392.0	2385.4	2359.2
12.5°	2444.7	2408.5	2382.3	2362.5	2355.9	2355.9	2313.1	2306.6	2276.9	2270.4	2230.9
15°	2342.7	2300.0	2283.5	2257.2	2234.2	2247.3	2198.0	2184.7	2175.0	2132.2	2138.8
17.5°	2253.9	2207.8	2168.4	2151.9	2132.2	2112.4	2066.3	2076.2	2053.1	2053.1	1994.0
20°	2138.8	2089.3	2059.7	2026.9	2026.9	2000.5	1967.7	1970.9	1941.2	1911.7	1859.0
22.5°	2017.0	1964.3	1928.1	1915.0	1882.1	1875.5	1836.0	1826.2	1786.7	1790.0	1743.9
25°	1888.6	1836.0	1786.7	1790.0	1760.4	1747.2	1724.2	1678.2	1661.7	1642.0	1628.7
27.5°	1737.3	1701.1	1658.3	1655.1	1599.1	1602.4	1572.8	1559.7	1520.1	1530.1	1500.4
30°	1599.1	1546.6	1507.0	1497.1	1474.1	1467.5	1421.5	1401.6	1408.3	1381.9	1365.6
32.5°	1457.5	1378.7	1362.2	1342.5	1329.3	1312.8	1279.9	1293.1	1263.5	1270.0	1243.7
35°	1270.0	1237.1	1194.4	1194.4	1181.2	1168.1	1145.1	1158.3	1128.6	1115.5	1089.1
37.5°	1112.1	1082.6	1039.8	1052.9	1029.8	1010.2	990.4	993.6	967.4	964.1	937.7
40°	941.0	924.5	895.0	895.0	878.6	878.6	868.6	858.8	842.3	822.6	792.9
42.5°	779.8	766.7	753.4	756.8	733.7	753.4	727.2	743.7	691.0	687.7	667.9
45°	661.3	631.8	635.0	621.8	608.7	615.3	592.2	598.8	569.2	562.7	543.0
47.5°	536.4	526.5	506.8	500.2	500.2	490.3	480.4	477.1	463.9	447.5	421.1
50°	440.9	404.7	398.0	388.3	381.7	381.7	368.5	348.8	352.1	335.7	309.2
52.5°	345.4	315.8	302.7	299.5	286.3	279.7	263.3	250.1	240.2	233.5	217.2
55°	266.5	240.2	223.8	223.8	204.1	204.1	181.0	171.1	157.9	144.7	135.0
57.5°	200.7	187.6	171.1	157.9	151.4	135.0	121.7	105.3	95.4	75.7	62.6
60°	151.4	138.2	121.7	111.9	105.3	88.8	72.4	59.2	36.2	29.6	26.3
62.5°	111.9	98.8	82.3	75.7	69.1	55.9	39.5	19.7	10.0	10.0	10.0
65°	82.3	65.7	52.6	46.0	39.5	29.6	13.1	6.6	3.4	3.4	3.4
67.5°	55.9	42.8	29.6	26.3	19.7	10.0	3.4	3.4	3.4	3.4	3.4
70°	36.2	26.3	13.1	10.0	6.6	3.4	3.4	3.4	3.4	3.4	3.4
72.5°	23.1	13.1	6.6	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	13.1	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	6.6	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P563872

CATALOG NUMBER: LD4C55D010 EX4C559030 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1	2744.1
2.5°	2678.4	2655.3	2668.4	2638.9	2652.0	2675.0	2658.7	2665.2
5°	2586.2	2573.0	2556.6	2513.9	2546.8	2573.0	2559.9	2556.6
7.5°	2487.6	2441.4	2464.5	2451.4	2444.7	2471.1	2441.4	2474.3
10°	2385.4	2352.6	2349.4	2326.3	2326.3	2346.1	2349.4	2329.5
12.5°	2234.2	2217.8	2217.8	2214.4	2211.1	2230.9	2234.2	2224.3
15°	2125.6	2119.0	2102.6	2099.3	2079.6	2109.1	2112.4	2109.1
17.5°	1994.0	1997.2	1980.8	1980.8	1994.0	2003.8	1977.4	2003.8
20°	1905.1	1888.6	1882.1	1852.4	1868.9	1885.5	1885.5	1888.6
22.5°	1776.7	1750.5	1760.4	1743.9	1733.9	1757.0	1757.0	1767.0
25°	1632.0	1632.0	1638.6	1628.7	1635.4	1648.5	1638.6	1661.7
27.5°	1493.9	1507.0	1507.0	1493.9	1500.4	1539.8	1556.3	1530.1
30°	1365.6	1368.7	1378.7	1372.1	1391.8	1405.0	1401.6	1421.5
32.5°	1220.7	1237.1	1243.7	1234.0	1240.5	1270.0	1253.7	1250.3
35°	1108.8	1079.2	1076.0	1079.2	1092.4	1099.0	1092.4	1115.5
37.5°	947.6	937.7	924.5	927.9	937.7	951.0	957.6	973.9
40°	792.9	779.8	779.8	776.5	766.7	802.9	802.9	802.9
42.5°	658.1	654.8	638.4	638.4	651.5	661.3	654.8	677.8
45°	539.6	526.5	516.5	516.5	526.5	526.5	536.4	533.0
47.5°	424.5	411.4	414.6	404.7	414.6	427.7	411.4	414.6
50°	319.2	319.2	312.6	319.2	315.8	319.2	312.6	306.1
52.5°	217.2	246.8	250.1	236.9	207.3	181.0	164.5	177.6
55°	125.0	111.9	111.9	108.5	101.9	98.8	88.8	98.8
57.5°	62.6	55.9	55.9	55.9	52.6	49.3	42.8	42.8
60°	26.3	23.1	23.1	19.7	16.5	13.1	10.0	13.1
62.5°	10.0	6.6	6.6	6.6	6.6	6.6	6.6	6.6
65°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
67.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
70°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)